

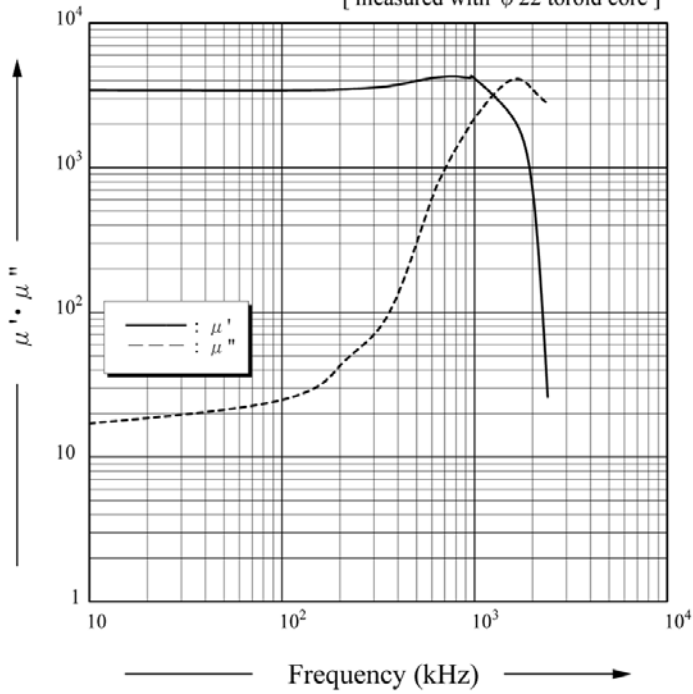
# 健全 C M Technology

## Power Ferrite 3H Material

| Parameter                        | Symbol                | Conditions                                 | °C  | Value              | Unit                     |
|----------------------------------|-----------------------|--|-----|--------------------|--------------------------|
|                                  |                       |  |     |                    |                          |
| Initial permeability             | $\mu_i$               | F:10kHz<br>B<0.25mT                        | 23  | 3300±25%           | —                        |
| Saturation flux density          | Bs                    | F:10kHz<br>H:800A/m                        | 23  | 530                | mT                       |
|                                  |                       |  | 100 | 415                |                          |
| Remanent flux density            | Br                    | H→0<br>( from near saturation )<br>f:10kHz | 23  | 90                 | mT                       |
|                                  |                       |  | 100 | 70                 |                          |
| Coercivity                       | Hc                    | B→0<br>( from near saturation )<br>f:10kHz | 23  | 9.5                | A/m                      |
|                                  |                       |  | 100 | 7                  |                          |
| Relative loss factor             | $\tan \delta / \mu_i$ | f:100kHz                                   | 23  | <2                 | $10^{-6}$                |
| Hysteresis material constant     | $\eta_B$              | f:10kHz<br>B<1.5mT~3.0mT                   | 23  | <0.3               | $10^{-6}/\text{mT}$      |
| Relative temperature coefficient | $\alpha_F$            | f:10kHz<br>B<0.25mT<br>T:25~55°C           |     | <2                 | $10^{-6}/^\circ\text{C}$ |
| Curie temperature                | Tc                    | f:10kHz<br>B<0.25mT                        |     | 240                | °C                       |
| Resistivity                      | $\rho$                |  | 23  | 5                  | $\Omega\text{m}$         |
| Density                          | d                     |  |     | $4.85 \times 10^3$ | $\text{kg}/\text{m}^3$   |
| Power Loss                       | Pcv                   | 25kHz-200mT                                | 23  | 50                 | $\text{kW}/\text{m}^3$   |
|                                  |                       |  | 80  | 40                 |                          |
|                                  |                       |  | 100 | 42                 |                          |
|                                  |                       |  | 120 | 45                 |                          |
|                                  |                       | 100kHz-200mT                               | 23  | 340                | $\text{kW}/\text{m}^3$   |
|                                  |                       |  | 80  | 295                |                          |
|                                  |                       |  | 100 | 305                |                          |
|                                  |                       |  | 120 | 350                |                          |
|                                  |                       | 200kHz-100mT                               | 23  | 185                | $\text{kW}/\text{m}^3$   |
|                                  |                       |  | 80  | 150                |                          |
|                                  |                       |  | 100 | 155                |                          |
|                                  |                       |  | 120 | 170                |                          |
|                                  |                       | 500kHz-50mT                                | 23  | 220                | $\text{kW}/\text{m}^3$   |
|                                  |                       |  | 80  | 200                |                          |
|                                  |                       |  | 100 | 205                |                          |
|                                  |                       |  | 120 | 230                |                          |

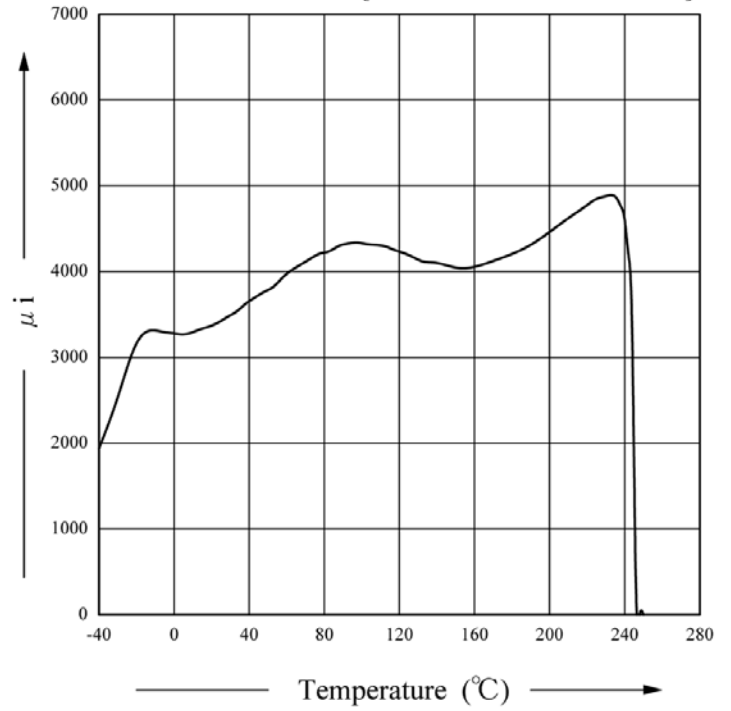
### Complex Permeability vs. Frequency

[ measured with  $\phi$  22 toroid core ]



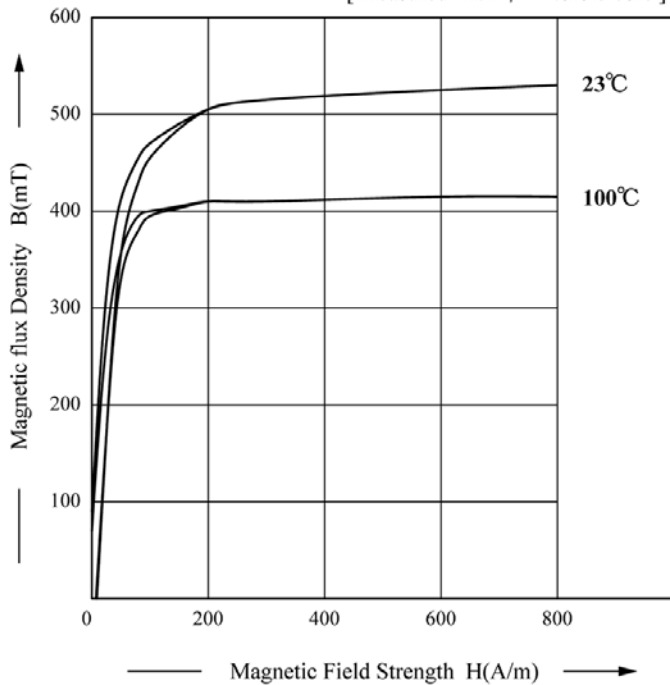
### Initial Permeability ( $\mu_i$ ) vs. Temperature

[ measured with  $\phi$  22 toroid core ]



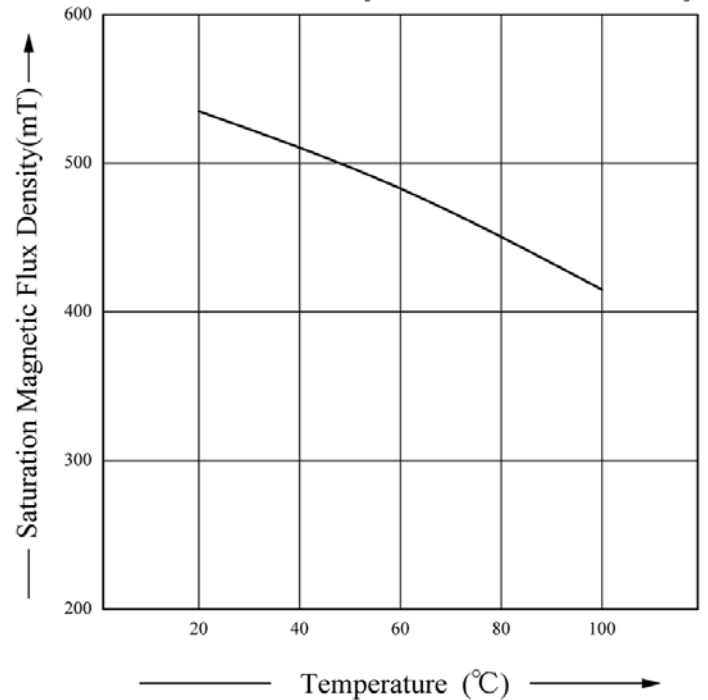
### Dynamic Magnetization Curves

[ measured with  $\phi$  22 toroid core ]



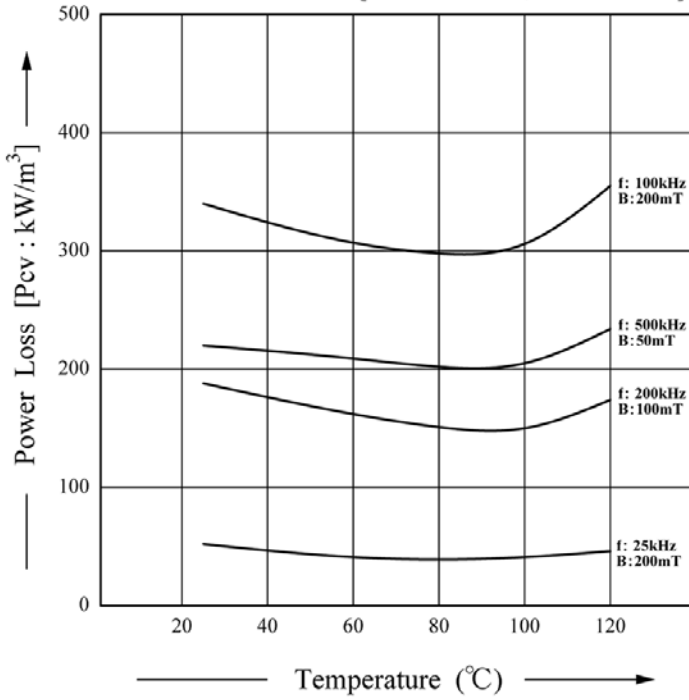
### Saturation Magnetic Flux Density vs. Temperature

[ measured with  $\phi$  22 toroid core ]



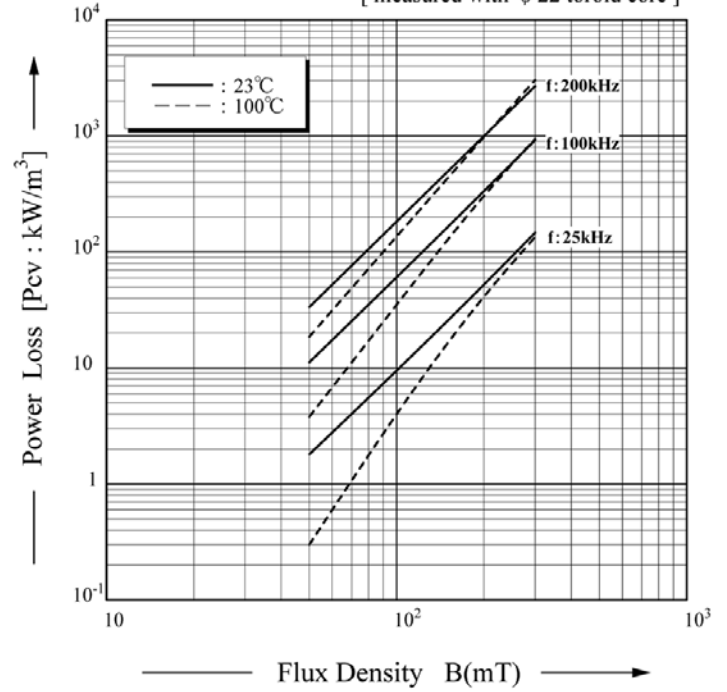
### Power Loss (Pcv) vs. Temperature

[ measured with  $\phi$  22 toroid core ]



### Power Loss (Pcv) vs. Flux Density

[ measured with  $\phi$  22 toroid core ]



### Power Loss (Pcv) vs. Frequency

[ measured with  $\phi$  22 toroid core ]

